

## **DETAILED ACTION**

### ***Specification***

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use. Even though applicants are not required to include these section headings in the specification, such inclusion would enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the relevant sections of the specification. The following section headings are suggested, as provided in 37 CFR 1.77(b):

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (d) BRIEF SUMMARY OF THE INVENTION.
- (e) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (f) DETAILED DESCRIPTION OF THE INVENTION.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 2, it is unclear how can the same report be both generated and received. Applicants are advised to distinguish between a copy of the report that is received and the one that's generated locally to provide clarity.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-5, and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhong et al. (Proposed Text for Medium Sensing Measurement Requests and Reports), document attached with IDS dated 04/13/06.

As to claim 1, Zhong teaches a method for storing and accessing at least one medium sensing time histogram measurement report by a plurality of wireless network devices (abstract, section 11.7.7.6), comprising the steps of:

in a device of said plurality,

providing a table having at least one entry for storage of and access to at least one medium sensing time histogram measurement report (section 7.3.2.20.5);

obtaining at least one medium sensing time histogram measurement report  
[receiving the report from another device] (section 11.7.7.6);

storing the obtained at least one medium sensing time histogram measurement  
report as said at least one entry in the provided table [since the report is received and  
analyzed, it is inherent that it is stored at the receiver device] (section 11.7.7.6); and

identifying the source of the medium sensing time histogram measurement  
[estimating if other non-802.11 radio devices operate on the sensed channel] (section  
11.7.7.6).

As to claim 2, Zhong teaches receiving the medium sensing time histogram  
measurement report from another device of said plurality of devices (section 11.7.7.6).

As to claim 3, Zhong teaches that said receiving step further comprises the step  
of first requesting the medium sensing time histogram measurement report from another  
device of said plurality of devices (section 11.7.7.6).

As to claim 4, Zhong teaches including in the medium sensing time histogram  
measurement report at least one bin comprising a count of occurrences of a  
predetermined type of medium event, each bin corresponding to a predetermined time  
interval (section 7.3.2.20.5);

first sensing the medium for at least one said predetermined time interval  
(section 7.3.2.20.5);

while performing the sensing step, counting a number of occurrences of at least one predetermined type of medium sensing event (section 7.3.2.20.5); and

entering the count info into the at least one bin of the medium sensing time histogram measurement corresponding to the predetermined type and predetermined time interval (section 7.3.2.20.5).

As to claim 5, Zhong teaches that said sensing step further comprises performing said sensing step for a predetermined frequency channel band of a predetermined frequency channel for the predetermined type (section 7.3.2.19.5).

As to claim 12, Zhong teaches that said provided table is a medium sensing time histogram report table contained in a management information base table located in each wireless network device of said plurality (abstract, sections 7.3.2.20.5 and 11.7.7.6); and

each said device of said plurality of devices is an IEEE 802.11 wireless network device (abstract).

6. Claims 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Diener et al. (US 2004/0137915 A1).

As to claim 13, Diener teaches an apparatus for storing and accessing a medium sensing time histogram report by a wireless network device [server 3000] (Fig. 1), comprising:

a receiver that receives at least one of a medium sensed input and a medium sensing time histogram measurement report (par. [0105]);

a transmitter that transmits a medium sensing time histogram measurement request (par. [0086] and [0089]);

a memory including a table having at least one entry for storage of at least one medium sensing time histogram report (par. [0084]);

a processor coupled to the receiver to generate at least one medium sensing time histogram report entry from the at least one medium sensed input and the received medium sensing time histogram measurement report [server 3000 inherently includes a processor executing instructions to perform the method steps] (par. [0063]); and

a time histogram management module coupled to the processor to receive and deliver a medium sensing time histogram report entry and respectively manage storage thereof as said at least one entry and access thereto as said at least one entry in the table of the memory (par. [0125]).

As to claim 14, Diener teaches a timer coupled to the processor for the processor to direct the time histogram management module to purge said at least one entry according to a predetermined time-dependent rule; and wherein said time histogram management module is further configured to purge said at least one entry under the control of the processor (par. [0120]).

As to claim 15, Diener teaches that said time histogram management module is further configured to store said at least one entry in a first-in-first-out order in said table of said memory (par. [0169]).

As to claim 16, Diener teaches that said table is a medium sensing time histogram report table contained in a management information base table [database 3110 at Fig. 4] ; and said wireless network device is an IEEE 802.11 wireless network device (Fig. 1).

As to claim 17, Diener teaches the receiver being further configured to receive a request for a medium sensing time histogram measurement report (par. [0121]); and the transmitter being further configured to transmit a medium sensing time histogram measurement report in response to a received medium sensing time histogram measurement request (par. [0121]).

As to claim 18, Diener teaches said time histogram management module is further configured to purge said at least one entry under the control of the processor (par. [0120]).

As to claim 19, Diener teaches that said time histogram management module is further configured to store said at least one entry in a first-in-first-out order in said table of said memory (par. [0169]).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diener et al. in view of Pristas et al. (US 2007/0253361 A1).

As to claim 1, Diener teaches a method for storing and accessing at least one medium sensing time histogram measurement report by a plurality of network devices (par. [0105]), comprising the steps of:

in a device of said plurality,

providing a table having at least one entry for storage of and access to at least one medium sensing time histogram measurement report (par. [0084]);

obtaining at least one medium sensing time histogram measurement report [receiving the report from another device] (par. [0063]);

storing the obtained at least one medium sensing time histogram measurement report as said at least one entry in the provided table (par. [0084]); and

identifying the source of the medium sensing time histogram measurement (par. [0105]).

Diener fails to teach that the device [server] is a wireless device.

Pristas discloses a wireless system comprising wireless user devices in communication with a wireless server (Fig. 1; par. [0015]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Diener by having the server being a wireless server in order to allow sensor devices (2000) to communicate with the server (3000) in a physical set up that does not allow for a wired LAN to be established, such as when sensor devices are mobile or embedded in structural elements of a building with no direct access to.

As to claim 10, Diener teaches purging said at least one entry according to a predetermined time-dependent rule (par. [0120]).

As to claim 11, Diener teaches that said storing step further comprises the step of storing said at least one measurement in a first-in-first-out order in said provided table (par. [0169]).

9. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhong et. al. in view of Diener et al.

As to claim 6, Zhong teaches all the elements except for purging said at least one entry according to a predetermined time-dependent rule.

Diener teaches purging said at least one entry according to a predetermined time-dependent rule (par. [0120]).



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Zhong by purging said at least one entry according to a predetermined time-dependent rule in order to free up memory in the event available memory becomes low (par. [0120] in Diener).

As to claim 7, Zhong in view of Diener teaches that said storing step further comprises the step of storing said at least one measurement in a first-in-first-out order in said provided table (par. [0169] in Diener).

As to claim 8, Zhong teaches that said provided table is a medium sensing time histogram report table contained in a management information base table located in each said wireless network device of said plurality; and each said device of said plurality of devices is an IEEE 802.11 wireless device (abstract; section 11.7.7.6).

As to claim 9, Zhong teaches that each said at least one bin further comprises a bin index of the position of the bin in the sequence of bins (section 7.3.2.20.5).

10. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diener et al. in view of Zhong et. al.

As to claim 20, Diener teaches all the elements except for said at least one entry further comprising a bin table having at least one bin containing a count of occurrences

of a predetermined type of medium event, said at least one bin corresponding to a predetermined time interval.

Zhong teaches that said at least one entry further comprises a bin table having at least one bin containing a count of occurrences of a predetermined type of medium event, said at least one bin corresponding to a predetermined time interval (section 7.3.2.20.5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Diener by having said at least one entry further comprising a bin table having at least one bin containing a count of occurrences of a predetermined type of medium event, said at least one bin corresponding to a predetermined time interval in order to separate medium events into time slots (section 7.3.2.19.5 in Zhong).

As to claim 21, Diener in view of Zhong teaches that each said at least one bin further comprises a bin index of the position of the bin in the sequence of bins (section 7.3.2.20.5 in Zhong).

As to claim 22, Diener in view of Zhong teaches that said table is a medium sensing time histogram report table contained in a management information base table (abstract, sections 7.3.2.20.5 and 11.7.7.6 in Zhong); and

said wireless device is an IEEE 802.11 wireless network device (abstract in Zhong).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLEG SURVILLO whose telephone number is (571)272-9691. The examiner can normally be reached on M-Th 9:30am - 7:00pm; F 9:30am - 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Lee can be reached on 571-272-3967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Oleg Survillo  
Phone: 571-272-9691

/Philip C Lee/  
Primary Examiner, Art Unit 2448